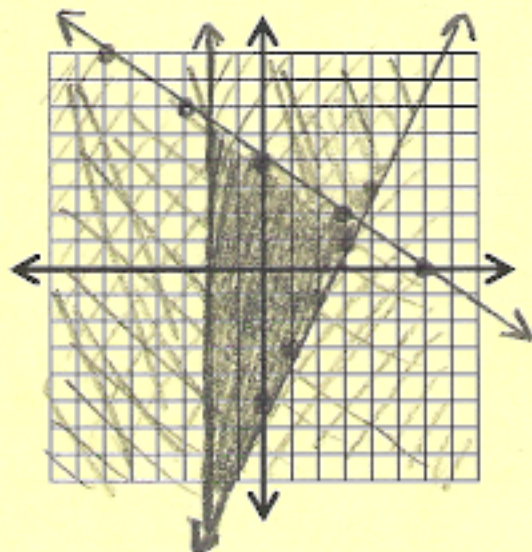


I. Graph each system of linear inequalities.

1.  $x \geq -2$

$$y \leq \frac{-2}{3}x + 4$$

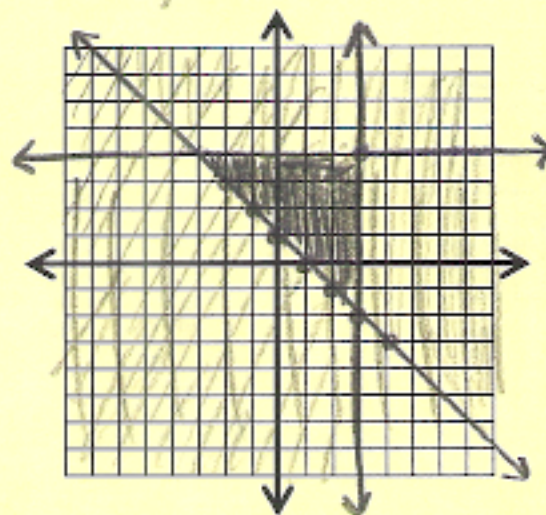
$$y \geq 2x - 5$$



2.  $x \leq 3$

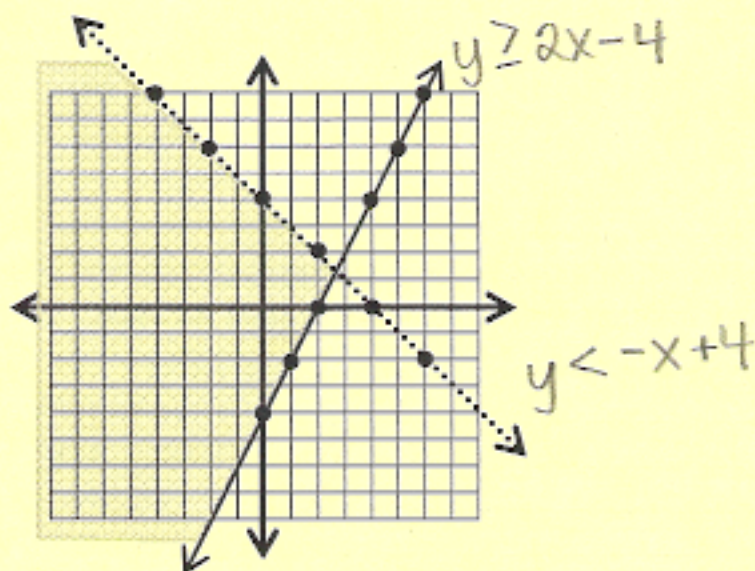
$$y \leq 4$$

$$x + y \geq 1 \quad y \geq -x + 1$$

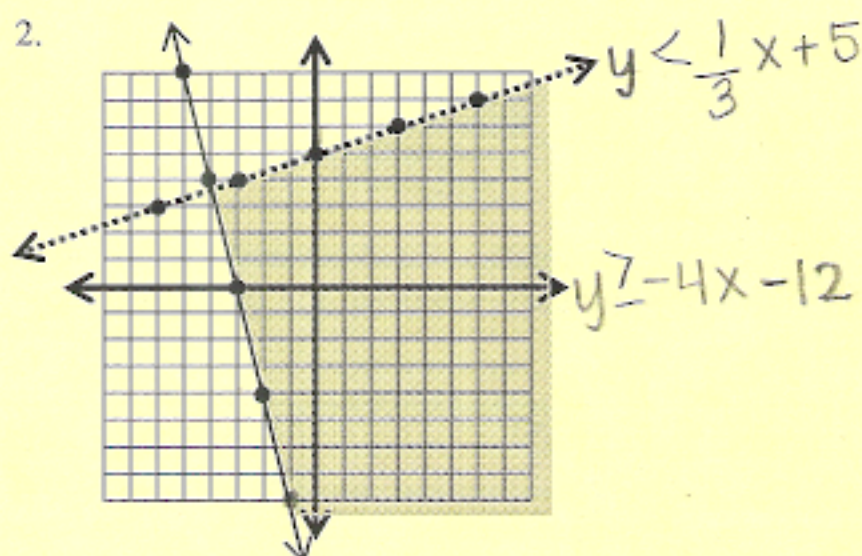


II. Write the system of inequalities whose solution is graphed.

1.



2.



III. Find the maximum and minimum values, if they exist, of each objective function for the given constraints. Graph the constraints and list all the vertices.

1.  $P = 2x + 4y$

Constraints:

$$x + y \geq 3$$

$$x \leq 3$$

$$2x - 3y \geq -9$$

Vertices:

$$(3,0), (0,3), (3,5)$$

$$y \geq -x + 3$$

$$3y \leq 2x + 9$$

$$y \leq \frac{2}{3}x + 3$$

$$P = 2(3) + 4(0) = 6 \text{ min}$$

$$P = 2(0) + 4(3) = 12$$

$$P = 2(3) + 4(5) = 26 \text{ max}$$

